

SUBJECT INDEX

Vol. 125B, Nos. 1-4

Absorption, 317
 Acetate esters, 265
 Acetohydroxy acid synthase, 205
 Acid hydrolases, 429
 Acipenserid, 197
 Acrosin, 197
 Adaptation, 99
 ADP-ribosylation, 99
 Affinity chromatography, 473
 Ageing, 147
 Agglutinins, 169
 Alcohol oxidase, 543
Aleurodicus dugesii, 265
 Amazon basin, 219
 Amino acid biosynthesis, 205
 Amino acids, 317
 Amino acid sequence, 255
 Amphibia, 111
 Amphibian, 347
 Amphibians, 405
 Anaerobic metabolism, 457
Anodonta, 293
 Antarctic, 371
 Antioxidant, 371
 Anuran, 347
 Apolipoprotein A-II, 473
 Apolipoprotein A-I, 473
 Aquaculture, 307
 Archaea, 205
 Arctic charr, 395
Artemia franciscana, 59
 Ascidian, 279
 Astaxanthin, 395
Astronotus, 219
 Atlantic salmon, 379
 Axon, 189
 Bacterial expression, 493
 Balb C mice, 21
 Biochemical properties, 79
 Biochemical systematics, 111
 Biomineralization, 293
 Bivalve, 359
 Bivalves, 293
 Blue-green algae, 169
Bombyx mori, 421
 Brachyura crustacea, 49
 Brain metabolism, 451
 Branched-chain amino acids, 205
 Brush border, 317
 Bull, 197
 Bullfrog, 237
 Buoyancy, 511
 Cadmium, 21
 Calcification, 123
 Calcium, 123
 Calpain, 79
 Carbohydrate-binding specificity, 169
 Carnivore, 317
 Carp, 473
 Carriers, 317
 Catalase, 147
 Cathepsin, 533
 Caudata, 111
 CDNA, 379
 CDNA cloning, 405
 Cell-free translation inhibition, 247
 Central nervous system, 421
 Ceramide, 523
 C3H/HeJ mice, 21
 Cichlids, 219
 Circadian rhythm, 237
 Circular dichroism, 13
 Citrate synthase, 67
 Citrulline assay, 483
Cladophora, 179
 Cleavage, 255
 Cnidaria, 483
 Cod, 533
Codium divaricatum, 133
 Coelomocytes, 429
 Cold inducible RNA-binding protein, 237
 Cold stress, 237
 Collectin, 279
 Complement, 279
 Consensus sequence RNA-binding domain, 237
 Control, 347
 Coral, 483
 Co-receptor, 337
Coryphaenoides, 99
Crassostrea gigas, 359
 Crustacea, 123
 Crustacean collagens, 555
 Crustaxanthin, 395
 Cuticle, 123
 Cuticular lipids, 265
 Cyanobacteria, 169
 2'-Cyclic nucleotide phosphodiesterases, 161
 Cyclic nucleotides, 161
 Cyclic phosphodiesterase, 161
 Cycloheximide, 451
Cyprinus carpio, 35
 Cystathionase, 211
 Cystatin, 493
 Cysteine, 211
 Cysteine protease, 533
 Cytosolic glycerol-3-phosphate dehydrogenase, 439
 Deep sea, 99
 Deep-sea sharks, 511
 Dendrite, 189
 Dexamethasone, 439
 Diacyl glyceryl ether, 511
 Diet, 317
 Dipeptide, 317
 Disulfide linkage, 493
 Earthworms, 429
 Eel, 473
 Embryo, 307
 Endoplasmic reticulum, 543
 Energy metabolism, 59, 67, 411
 Enzymatic characterization, 563
 Enzyme induction, 451
 Enzyme kinetics, 67
 Enzyme scaling, 219
 Epstein-Barr virus, 43
 Estivation, 347
 Estrogen receptor- α , 379
 Eucheuma, 169
 Euryarchaeota, 205
 Evolution, 279, 405, 555
 Exoskeleton, 123
 Expression, 79
 Expression in *E. coli*, 563
 Extrapalial fluid, 293
 Eyestalk ablated female, 49
 Fatty acids, 265
 Fatty acid synthetase, 503
 Fetal metabolism, 27
 Fibrinogen clotting enzyme, 133
 Fibrinogenolytic activity, 133
 Fibrinolytic activity, 133
 Filaments, 265
 Fish, 35, 317, 371, 387
 Fish Brain, 451
 Fish leukocytes, 523
 Fish muscle, 79
 Fluorescence spectroscopy, 13
 Foreign gene expression, 43
 Free radical, 371
 Fresh water algae, 179
 Frog, 211
 Frogs, 405
 Fructose-1,6-bisphosphatase, 93
Fusarium, 161
Gadus macrocephalus, 533
Gallus domesticus, 189
 Gametogenesis, 359
 Gastropod, 543
 Gene expression, 189, 379
 Genetic variability, 111
 Genomic structure, 35
 Geographic variation, 111
 Gill, 307
 Glucokinase, 387
 Gluconeogenesis, 93, 387, 411
 Glucosamine, 293
 Glucose, 317
 Glutathione, 211
 Glycerol, 411
 α -Glycerophosphate dehydrogenase, 451
 Glycine rich domain, 237
 Glycogen, 359, 387, 411
 Glycolysis, 387
 Glycolytic, 347
 Glycosaminoglycan, 293
 G protein-receptor coupling, 99
 Haemolymph, 293
Haloferax volcanii, 205
 Halogenation, 179
 Haloperoxidase, 179
 Halophile, 205
 Hatch, 503
 HDL, 473
 Heart, 307
 Heat stress, 371
 Hemagglutinin, 227
 Heme protein, 179
 Hemolymph, 337
 Heparin, 337
 Hepatopancreas, 307
Heteropneustes fossilis, 451
 Hexokinase, 387
 Hibernation, 237, 439
 High pressure, 99
 Hybridomas, 473
 Hydrocarbons, 265
 Hydrogen peroxide, 543
 β -Hydroxybutyrate, 59
3-Hydroxykynurenone, 421
Hynobius kimurae, 111
 Hypometabolism, 347
 Hypoxia survivorship, 219
Idotea baltica, 67
Idotea emarginata, 67
 Idoxanthin, 395
 Immunity, 279
 Immunoblotting, 255
 Inhibition, 503

SUBJECT INDEX

Vol. 125B, Nos. 1-4

Absorption, 317
 Acetate esters, 265
 Acetohydroxy acid synthase, 205
 Acid hydrolases, 429
 Acipenserid, 197
 Acrosin, 197
 Adaptation, 99
 ADP-ribosylation, 99
 Affinity chromatography, 473
 Ageing, 147
 Agglutinins, 169
 Alcohol oxidase, 543
Aleurodicus dugesii, 265
 Amazon basin, 219
 Amino acid biosynthesis, 205
 Amino acids, 317
 Amino acid sequence, 255
 Amphibia, 111
 Amphibian, 347
 Amphibians, 405
 Anaerobic metabolism, 457
Anodonta, 293
 Antarctic, 371
 Antioxidant, 371
 Anuran, 347
 Apolipoprotein A-II, 473
 Apolipoprotein A-I, 473
 Aquaculture, 307
 Archaea, 205
 Arctic charr, 395
Artemia franciscana, 59
 Ascidian, 279
 Astaxanthin, 395
Astronotus, 219
 Atlantic salmon, 379
 Axon, 189
 Bacterial expression, 493
 Balb C mice, 21
 Biochemical properties, 79
 Biochemical systematics, 111
 Biomineralization, 293
 Bivalve, 359
 Bivalves, 293
 Blue-green algae, 169
Bombyx mori, 421
 Brachyura crustacea, 49
 Brain metabolism, 451
 Branched-chain amino acids, 205
 Brush border, 317
 Bull, 197
 Bullfrog, 237
 Buoyancy, 511
 Cadmium, 21
 Calcification, 123
 Calcium, 123
 Calpain, 79
 Carbohydrate-binding specificity, 169
 Carnivore, 317
 Carp, 473
 Carriers, 317
 Catalase, 147
 Cathepsin, 533
 Caudata, 111
 CDNA, 379
 CDNA cloning, 405
 Cell-free translation inhibition, 247
 Central nervous system, 421
 Ceramide, 523
 C3H/HeJ mice, 21
 Cichlids, 219
 Circadian rhythm, 237
 Circular dichroism, 13
 Citrate synthase, 67
 Citrulline assay, 483
Cladophora, 179
 Cleavage, 255
 Cnidaria, 483
 Cod, 533
Codium divaricatum, 133
 Coelomocytes, 429
 Cold inducible RNA-binding protein, 237
 Cold stress, 237
 Collectin, 279
 Complement, 279
 Consensus sequence RNA-binding domain, 237
 Control, 347
 Coral, 483
 Co-receptor, 337
Coryphaenoides, 99
Crassostrea gigas, 359
 Crustacea, 123
 Crustacean collagens, 555
 Crustaxanthin, 395
 Cuticle, 123
 Cuticular lipids, 265
 Cyanobacteria, 169
 2'-Cyclic nucleotide phosphodiesterases, 161
 Cyclic nucleotides, 161
 Cyclic phosphodiesterase, 161
 Cycloheximide, 451
Cyprinus carpio, 35
 Cystathionase, 211
 Cystatin, 493
 Cysteine, 211
 Cysteine protease, 533
 Cytosolic glycerol-3-phosphate dehydrogenase, 439
 Deep sea, 99
 Deep-sea sharks, 511
 Dendrite, 189
 Dexamethasone, 439
 Diacyl glyceryl ether, 511
 Diet, 317
 Dipeptide, 317
 Disulfide linkage, 493
 Earthworms, 429
 Eel, 473
 Embryo, 307
 Endoplasmic reticulum, 543
 Energy metabolism, 59, 67, 411
 Enzymatic characterization, 563
 Enzyme induction, 451
 Enzyme kinetics, 67
 Enzyme scaling, 219
 Epstein-Barr virus, 43
 Estivation, 347
 Estrogen receptor- α , 379
 Eucheuma, 169
 Euryarchaeota, 205
 Evolution, 279, 405, 555
 Exoskeleton, 123
 Expression, 79
 Expression in *E. coli*, 563
 Extrapalial fluid, 293
 Eyestalk ablated female, 49
 Fatty acids, 265
 Fatty acid synthetase, 503
 Fetal metabolism, 27
 Fibrinogen clotting enzyme, 133
 Fibrinogenolytic activity, 133
 Fibrinolytic activity, 133
 Filaments, 265
 Fish, 35, 317, 371, 387
 Fish Brain, 451
 Fish leukocytes, 523
 Fish muscle, 79
 Fluorescence spectroscopy, 13
 Foreign gene expression, 43
 Free radical, 371
 Fresh water algae, 179
 Frog, 211
 Frogs, 405
 Fructose-1,6-bisphosphatase, 93
Fusarium, 161
Gadus macrocephalus, 533
Gallus domesticus, 189
 Gametogenesis, 359
 Gastropod, 543
 Gene expression, 189, 379
 Genetic variability, 111
 Genomic structure, 35
 Geographic variation, 111
 Gill, 307
 Glucokinase, 387
 Gluconeogenesis, 93, 387, 411
 Glucosamine, 293
 Glucose, 317
 Glutathione, 211
 Glycerol, 411
 α -Glycerophosphate dehydrogenase, 451
 Glycine rich domain, 237
 Glycogen, 359, 387, 411
 Glycolysis, 387
 Glycolytic, 347
 Glycosaminoglycan, 293
 G protein-receptor coupling, 99
 Haemolymph, 293
Haloferax volcanii, 205
 Halogenation, 179
 Haloperoxidase, 179
 Halophile, 205
 Hatch, 503
 HDL, 473
 Heart, 307
 Heat stress, 371
 Hemagglutinin, 227
 Heme protein, 179
 Hemolymph, 337
 Heparin, 337
 Hepatopancreas, 307
Heteropneustes fossilis, 451
 Hexokinase, 387
 Hibernation, 237, 439
 High pressure, 99
 Hybridomas, 473
 Hydrocarbons, 265
 Hydrogen peroxide, 543
 β -Hydroxybutyrate, 59
 3-Hydroxykynurenone, 421
 Hynobiidae, 111
Hynobius kimurae, 111
 Hypometabolism, 347
 Hypoxia survivorship, 219
Idotea baltica, 67
Idotea emarginata, 67
 Idoxanthin, 395
 Immunity, 279
 Immunoblotting, 255
 Inhibition, 503

Subject Index

Inhibition study, 563
 Insect, 123, 337
 Insect eggs, 503
 In situ hybridization, 189
 Insulin, 405
 Interferon-gamma, 337
 Invertebrate, 483
 Invertebrates, 555
 In vivo gene electroporation, 43
 Iodination, 179
 Iodixanol gradient, 543
 Isolation, 169
 Isopods, 67
Jaculus orientalis, 439
 Ketone bodies, 59
 Kinetic study, 563
 Latency, 429
 Lectin, 169, 227, 279
 Life expectancy, 147
 Lipid, 347
 Lipid biosynthesis, 503
 Lipids, 265
 Lipofuscin, 147
 Liver, 387
 Liver oil, 511
 Lizard fish, 255
Lolliguncula brevis, 147
 Long-chain alcohols, 265
 Long-chain aldehydes, 265
 Low salinity location, 457
 Luciferase activity, 43
 Lysosomal fragility, 429
 Macrouridae, 99
 Malic enzyme, 451
 Malondialdehyde, 147
 Mannose-binding lectin, 279
 Marine alga, 133
 Marine fish larvae, 59
 MCA-substrate, 255
 Medium chain fatty acids, 503
 3-Mercaptopyruvate sulfurtransferase, 211
 Metabolic rate, 147
 Metabolism, 347, 395
 Metallothionein, 21
 Methionine, 523
 Microsome, 503
 Milt, 197
 Miltpain, 533
 Mitochondrial glycerol-3-phosphate dehydrogenase, 439
 Mitochondrial respiration, 457
 Mitogen, 307
 Miw promoter, 43
 Molecular organization, 49
 Mollusc, 543
 Molt, 123
 Monoclonal antibody, 473
 Mushroom, 247
 Mycelia, 247
 Myofibril-bound, 255
Myxococcus xanthus, 169
 NADPH diaphorase, 483
 Nematocyst, 227
 Nematode, 411
 Neozoan species, 457
 Neural enzyme, 451
 Neuropeptide Y, 337
 Neutral glycosphingolipids, 523
 Neutral proteinase, 13
 Nitric oxide, 483
 Nitric oxide synthase, 483
 Noncompetitive inhibition, 533
 N-Terminal sequence, 169
 Nucleotide 2'-phosphohydrolase, 161
 Nymphs, 265
 Octocoral, 227
 Ommin, 421
 Ommochrome, 421
 Ommochrome-binding protein, 421
 O-Phenanthroline, 533
Oscillatoria agardhii, 169
 Osmotic dehydration, 411
 Oxidative phosphorylation, 457
 Oxygen radicals, 21
 Oxygen uptake, 21
 Pacific cod, 533
 Pacific oyster, 359
 Paddlefish, 197
 Palisade, 265
 Parr, 379
 PCR, 35
 Penaeus, 123
 Peptide, 255
 Perch, 387
 Permeability, 411
 Pertussis toxin, 99
 PH and temperature optima, 563
 Phosphofructokinase, 347
 Photoreceptor, 35
 Phytosphingosine, 523
 Pigment granule, 421
 Plasma proteins, 27
 Pneumococcal infection, 21
 Polychaeta, 457
 Polymorphism, 79
 Post-mortem, 79
 Prawn, 123
 Pre-receptor, 337
 Proinsulin processing, 405
 Protease, 493
 Protease activity, 133
 Protease inhibitor, 493
 Protein geranylgeranyltransferase I, 307
 Protein refolding, 493
 Proteins, 293
 Protein Selco, 59
 PTU, 439
 Pupae, 265
 Purification, 79, 255
 Quail testis, 43
Rana pipiens, 405
 Ras, 307
 Rat, 27
 Rat kidney cortex, 93
 Receptor, 337
 Recombinant human tyrosinase, 563
 Red-sea bream, 473
 Respiration, 67
 Rhodanese, 211
 Rhodopsin, 35
 Ribose 1,5-bisphosphate, 93
 Role, 79
 RT-PCR, 189, 379
 Salmonid, 493
Salvelinus alpinus, 395
 Sea anemone, 483
 Seasonal, 293
 Seasonal variation, 79
 Self-replication sequence, 43
 Semen, 197
Sepia officinalis, 147
 Sequence, 379
 Sequence comparison, 35
 Serine, 523
 Serine protease, 133
 Serine proteinase, 255
 Sexual maturation, 395
 Shrimp, 307
 Simple purification, 563
Simularia lochnodes, 227
 Soft coral, 227
 Spermatozoa, 197
 Sphingomyelin, 523
 Sphingosine, 523
 Squalene, 511
 SrDNA, 227
Steinerinema carpocapsae, 411
 Storage tissue, 359
 Stress, 21
 Structure-function relations, 555
 Surgeon, 197, 473
 Subcellular fractionation, 543
 Suboesophageal ganglion, 421
 Sulfane sulfur, 211
 Sulphide oxidation, 457
 Summer mortalities, 359
 Superoxide dismutase, 147
 Super Selco, 59
 SV40 promoter, 43
Symbiodinium, 227
 Symbiosis, 227
 T4, 439
 T3, 439
 Teleost, 379
 Temperature, 371
 Temperature adaptation, 67
 Thiosulphate, 457
 Thyroid hormones, 439
 Tissue distribution, 439
 Transcriptional regulation, 43
 Transferrin, 27
 Transient expression, 43
 Transmembrane signaling, 99
Triatoma infestans, 503
Tricholoma lobavense, 247
 Trout, 493
 Tunicate, 279
 Type discrimination, 35
 Unglycosylated enzyme, 563
 Urea, 347
 Vesicular cells, 359
 Visceral yolk sac, 27

Subject Index

Vitamin B₁₂, 451
Vitamin C, 371
Vitamin E, 371

Vitellin, 49
Vitellogenin, 49
Waxes, 265

Wax esters, 265
XCIRP, 237

AUTHOR INDEX
Vol. 125B, Nos. 1-4

Adachi, Y., 237
Almeida-Val, V. M. F., 219
Andersen, R. A., 21
An, H., 493
Arndt, C., 457

Bakke-Mckellep, A. M., 317
Barak, Z., 205
Barnes, D. W., 493
Barth, S. W., 189
Bedding, R. A., 411
Berrada, W., 439
Berthelin, C., 359
Bhattacharyya, U., 451
Bjerkeng, B., 395
Bodenec, J., 523
Borrebaek, B., 387
Bourhim, N., 439
Brichon, G., 523
Buchholz, F., 67
Buckner, J. S., 265
Buddington, R. K., 317

Cao, M.-J., 255
Chandrakasan, G., 555
Chaplet, M., 79
Chen, W.-Y., 307
Chipman, D. M., 205
Cho, S.-H., 563
Christophersen, B., 387
Chuang, N.-N., 307
Ciereszko, A., 197
Claude, J. F., 347
Connock, M., 543
Cuddihy, S., 371

Dabrowski, K., 197
Dasmahapatra, A. K., 451
Davison, W., 371
Depledge, M. H., 483
Doi, Y., 533
Dolashka-Angelova, P., 13
Duncan, W. P., 219

Eichler, J., 205
Endo, H., 123
Evjemo, J. O., 59

Fernández-Centeno, E., 161
Fleurence, J., 79
Freeman, T. P., 265
Furuyama, S., 93
Fyhn, H. J., 59

Galloway, T. S., 483
Gieseg, S. P., 371
Glogowski, J., 197
Green, P. L., 279
Grewal, N., 543
Grossmann, R., 189

Hahlbeck, E., 457
Hara, K., 255
Hatlen, B., 395
Hayashi, S., 473
Hemre, G. I., 59

Heredia, C. F., 161
Hill, J. V., 371
Honsi, T. G., 429
Hochachka, P. W., 11
Hong, M.-P., 563
Hori, K., 133, 169
Huang, C.-F., 307

Ichishima, E., 533
Iijima, N., 473
Irwin, D. M., 405
Ishihara, T., 255

Jaworski, A., 27
Jimbo, M., 227
Jobling, M., 395
Juárez, M. P., 503

Kamiya, H., 227
Katoh, H., 473
Kawabata, C., 533
Kellner, K., 359
Kline, P. C., 179
Koike, K., 227, 227
Kong, K.-H., 563
Kono, M., 123
Koul, O., 523
Krogdahl, Å., 317

Lacey, M. J., 411
Ladrat, C., 79
Land, S., 219
Large, A., 543
Li, F., 493
Lim, J., 35
Llewellyn, L., 379

MacDonald, J. A., 347
Machado, J., 293
Mahajan, D., 279
Maoka, T., 291
Mase, K., 421
Mathieu, M., 359
Matsubara, K., 133
Matsui, M., 111
Matsuno, T., 291
Matsurra, Y., 133
Medda, A. K., 451
Mesna, O. J., 21
Mims, S. D., 197
Minami, T., 291
Misawa, Y., 111
Mitsui, Y., 93
Miyazawa, K., 133, 169
Mommesen, T. P., 11
Mori, K. J., 237
Morrall, C. E., 483
Moura, G., 293
Murakami, M., 169
Muramatsu, T., 43
Muramoto, K., 227

Nair, S. V., 279
Nakagoshi, M., 421
Napolitano, R., 503
Naya, A., 439

Ndiaye, D., 473
Nelson, D. R., 265
Newton, R. A., 279
Ng, T. B., 247
Nichols, P. D., 511
Nishikawa, K., 111
Noël, J., 79
Nordrum, S., 317

Ohkubo, M., 291
Olsen, Y., 59
Ooi, V. E. C., 247
Osatomii, K., 255
Ouafik, L., 439
Ourth, D. D., 337
Ozaki, I., 93

Parker, M. S., 337
Park, H.-M., 43
Park, S.-Y., 563
Parveen, Z., 543
Pateraki, L. E., 49
Paula-Silva, M. N., 219
Pearce, S., 279
Perry, C., 543
Persson, P., 123
Ping Ge, Y., 473
Pörtner, H.-O., 147
Portoukalian, J., 523

Qiu, L., 411

Raftos, D. A., 279
Richardson, S. J., 27
Rogers, S. A., 379

Saito, T., 237
Sakaguchi, S., 291
Sakai, R., 227
Salomon, M., 67
Santos, A. C., 293
Sato, Y., 169
Sawada, H., 421
Schiedek, D., 457
Seymour, T. A., 493
Siebenaller, J. F., 99
Sivakumar, P., 555
Sivarajah, P., 405
Southwell, B. R., 27
Souza, F. C. A., 219
Srebro, Z., 211
Stenersen, J., 429
Stevens, C. K., 99
Stewart, J. M., 347
Stoeva, S., 13
Storey, K. B., 347
Stratakis, E., 49
Su, C.-Y., 35
Sugihara, K., 43
Sugimoto, K., 237
Sugiyama, H., 93
Suguna, L., 555
Sura, P., 211
Sweeney, G. E., 379

Author Index

Tanabe, S., 111
Toriumi-nami, Y., 291
Trapido-Rosenthal, H. G., 483
Tsai, H.-J., 35
Tsushima, M., 291

Val, A. L., 219
Verdel, E. F., 179
Verrez-Bagnis, V., 79

Vilarinho, L., 293
Voelter, W., 13
Vyazmensky, M., 205

Wang, H. X., 247
Wani, S., 179
Watanabe, T., 123
Weltzien, F.-A., 59
Wetherbee, B. M., 511
Wigham, T., 379

Wilhelmsen, T. W., 21
Woods, A. E., 179
Wróbel, M., 211
Wu, Q., 237

Yamamoto, T., 421
Yanohara, T., 227

Zielinski, S., 147
Zwingelstein, G., 523

